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EXAMINER				
DANG, HUNG Q				
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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

### Office Action Summary

**Application No.**

10/586,758

**Applicant(s)**

ITOI ET AL.

**Examiner**

Hung Q. Dang

**Art Unit**

2621

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on 27 February 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-40 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-40 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 20 July 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-85/86)
- Paper No(s)/Mail Date 8/21/06

- 4) ☐ Interview Summary (PTO-413)
- Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

**Claims 24-25 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.**

Claims 24-25 recites "a method for recording data," which is claiming to claim a process without setting forth any steps involved in the process. Therefore, the claims generally raise an issue of indefiniteness under **35 U.S.C. 112**, second paragraph. The claims held to be indefinite because it merely recites a use without any active, positive steps delimiting how this use is actually practiced. *Ex parte Erlich*, 3 USPQ2d 1011 (Bd. Pat. App. & Inter. 1986) (see MPEP 2173.05(q)).

### ***Claim Rejections - 35 USC § 101***

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

**Claims 24-25 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.**

MPEP 2173.05(q) reads:

In *Ex parte Dunki*, 153 USPQ 678 (Bd. App. 1967), the Board held the following claim to be an improper definition of a process: "The use of a high carbon austenitic iron alloy having a

proportion of free carbon as a vehicle brake part subject to stress by sliding friction." In *Clinical Products Ltd. v. Brenner*, 255 F. Supp. 131, 149 USPQ 475 (D.D.C. 1966), the district court held the following claim was not a proper process claim under **35 U.S.C. 101**: "The use of a sustained release therapeutic agent in the body of ephedrine absorbed upon polystyrene sulfonic acid."

Although a claim should be interpreted in light of the specification disclosure, it is generally considered improper to read limitations contained in the specification into the claims. See *In re Prater*, 415 F.2d 1393, 162 USPQ 541 (CCPA 1969) and *In re Winkhaus*, 527 F.2d 637, 188 USPQ 129 (CCPA 1975), which discuss the premise that one cannot rely on the specification to impart limitations to the claim that are not recited in the claim.

Claims 24-25 are rejected under 35 U.S.C. 101 because the claims recite a method or process without setting forth any steps involved in the process. Since the claims 24-25 do not set forth any steps involved in the process, they are not proper process claims thus do not fall within a statutory category of invention because the claimed subject matter is not limited to a process, machine, manufacture, or a composition of matter.

**Claims 27 and 40 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.**

The USPTO "Interim Guidelines for Examination of Patent Applications for Patent Subject Matter Eligibility" (Official Gazette notice of 22 November 2005), Annex IV, reads as follows:

Descriptive material can be characterized as either "functional descriptive material" or "nonfunctional descriptive material." In this context, "functional descriptive material" consists of data structures and computer programs which impart functionality when employed as a computer component.

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(The definition of "data structure" is "a physical or logical relationship among data elements, designed to support specific data manipulation functions." The New IEEE Standard Dictionary of Electrical and Electronics Terms 308 (5<sup>th</sup> ed. 1993).) "Nonfunctional descriptive material" includes but is not limited to music, literary works and a compilation or mere arrangement of data.

When functional descriptive material is recorded on some computer-readable medium it becomes structurally and functionally interrelated to the medium and will be statutory in most cases since use of technology permits the function of the descriptive material to be realized. Compare *In re Lowry*, 32 F.3d 1579, 1583-84, 32 USPQ2d 1031, 1035 (Fed. Cir. 1994) (claim to data structure stored on a computer readable medium that increases computer efficiency held statutory) and *Warmerdam*, 33 F.3d at 1360-61, 31 USPQ2d at 1759 (claim to computer having a specific data Structure stored in memory held statutory product-by-process claim) with *Warmerdam*, 33 F.3d at 1361, 31 USPQ2d at 1760 (claim to a data structure per se held nonstatutory).

In contrast, a claimed computer-readable medium encoded with a computer program is a computer element which defines structural and functional interrelationships between the computer program and the rest of the computer which permit the computer program's functionality to be realized, and is thus statutory. See *Lowry*, 32 F.3d at 1583-84, 32 USPQ2d at 1035.

Claims 27 and 40 recites, "a recording medium." However, the claims do not define a computer- readable recording medium and is thus non-statutory for that reason (i.e., "when functional descriptive material is recorded on some computer-readable medium it becomes structurally and functionally interrelated to the medium and will be statutory in most cases since use of technology permits the function of the descriptive material to be realized" - Guidelines Annex IV). The examiner suggests amending the claim to embody functional descriptive data on "computer-readable recording medium" or equivalent in order to make the claim statutory. Any amendment to the claim would be commensurate with its corresponding disclosure.

Further, the USPTO "Interim Guidelines for Examination of Patent Applications for Patent

Subject Matter Eligibility" (Official Gazette notice of 22 November 2005), Annex IV, reads as follows:

Nonfunctional descriptive material that does not constitute a statutory process, machine, manufacture or composition of matter and should be rejected under 35 U.S.C. Sec. 101. Certain types of descriptive material, such as music, literature, art, photographs, and mere arrangements or compilations of facts or data, without any functional interrelationship is not a process, machine, manufacture or composition of matter. USPTO personnel should be prudent in applying the foregoing guidance. Nonfunctional descriptive material may be claimed in combination with other functional descriptive multi-media material on a computer-readable medium to provide the necessary functional and structural interrelationship to satisfy the requirements of 35 U.S.C. Sec. 101. The presence of the claimed nonfunctional descriptive material is not necessarily determinative of nonstatutory subject matter. For example, a computer that recognizes a particular grouping of musical notes read from memory and upon recognizing that particular sequence, causes another defined series of notes to be played, defines a functional interrelationship among that data and the computing processes performed when utilizing that data, and as such is statutory because it implements a statutory process.

Claims 27 and 40 recite "a recording medium in which data is recorded" by a method, and is thus considered nonfunctional descriptive material. Such nonfunctional descriptive material, in the absence of a functional interrelationship with a computer, does not constitute a statutory process, machine, manufacture or composition of matter and is thus non-statutory per se.

### ***Double Patenting***

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

**Claims 3-4 of this application are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claim 1 of copending Application No. 10/594143.** Although the conflicting claims are not identical, they are not patentably distinct from each other.

Regarding claim 3 of this application, claim 1 of Application No. 10/594143 recites, a broadcast video/audio data recording method characterized in that management data is recorded in a first file (*corresponds to the step of "recording management data in a first file" recited by claim 3 of this application*), a stream representing broadcast in TS (Transport Stream) is recorded in a second file, a stream representing video and audio in PS (Program Stream) is recorded in a third file (*correspond to the step of "recording n kinds of stream in other files ..." recited by claim 3 of this application, with n being 2 – the streams being distinguished from each other by at least formatting processes, i.e. TS format vs PS format*), a subsidiary file is provided separately from the first to third files, and the contents of the data in the files are indicated by the management data in the first file (*corresponds to the step of "arranging flags in the first file, the flags being used for distinction of the n kinds of the streams" recited in claim 3 of this application with the flags being pieces of information that indicate the content of the data*).

Regarding claim 4 of this application, claim 1 of Application No. 10/594143 recites, a broadcast video/audio data recording method characterized in that

management data is recorded in a first file (*corresponds to the step of "recording management data in a first file" recited by claim 4 of this application*), a stream representing broadcast in TS (Transport Stream) is recorded in a second file, a stream representing video and audio in PS (Program Stream) is recorded in a third file (*correspond to the step of "recording n kinds of stream in second to (m+1)th files ..." recited by claim 4 of this application with n being 2 – the streams being distinguished from each other by at least formatting processes, i.e. TS format vs PS format*), a subsidiary file is provided separately from the first to third files, and the contents of the data in the files are indicated by the management data in the first file (*corresponds to the step of "arranging flags in the first file, the flags being used for distinction of the n kinds of the streams" recited by claim 4 of this application with the flags being pieces of information that indicate the content of the data*).

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

**Claims 1-8, 17-24, and 26-40 are rejected under 35 U.S.C. 102(b) as being anticipated by Ando et al. (US Patent 6,341,196 – hereinafter Ando).**



Regarding claim 1, Ando discloses a method for recording data, comprising:  
recording management data in a first file (*at least "Navigation Data RTR\_VMG" in Fig. 23, Fig. 24, and Fig. 25*); and recording a time-map-free stream, which does not contain a time map showing the relationship between time and recording position, in a second file (*at least the file "RTR\_STO.VRO" and the file "RTR\_STA.VRO" in Fig. 23, Fig. 24, and Fig. 25 – in Fig. 25, the files "RTR\_STO.VRO" and "RTR\_STA.VRO" do not have a time map while the file RTR\_MOV.VRO does have one*).

Regarding claim 2, Ando discloses a method for recording data, comprising:  
recording management data in a first file (*Fig. 13A or RTR\_VMG in Fig. 25*); recording  $n$  ( $n > 2$ ) kinds of streams in a second file (*Fig. 13A; Fig. 24 – in Fig. 24, the Examiner interprets the DVD\_RTR Directory as a second file, in which the streams for movie video, still picture video, still picture-added audio streams, and other streams are stored; or column 31, lines 36 – each stream corresponds to at least a VOB and distinguished from each other at least by search pointers*), the streams being distinguished from each other by a predetermined process (*Fig. 13A; Fig. 24 – in Fig. 24, the Examiner interprets the DVD\_RTR Directory as a second file, in which the streams for movie video, still picture video, still picture-added audio streams, and other streams are stored – and each stream is distinguished from the other by at least the naming process via which each stream can be distinguished by the names of RTR\_MOV.VRO, RTR\_STO.VRO, RTR\_STA.VRO etc.; or column 31, lines 36 – each stream corresponds to at least a VOB and distinguished from each other at least by search pointers*); and arranging flags in the first file, the flags being used for distinction of the  $n$

kinds of streams recorded in the second file (*Fig. 13A; Fig. 15; column 18, lines 1-15 – the streams have their corresponding entries, which have information to tell them apart; or column 31, lines 36 – each stream corresponds to at least a VOB and distinguished from each other at least by search pointers*).

Regarding claim 3, Ando discloses a method for recording data, comprising: recording management data in a first file (*Fig. 13A*); recording n kinds of streams in other files such that first, second, third ..... and nth streams are recorded in second, third ..... and (n+1)th files, respectively (*Fig. 13A; Fig. 24 – in Fig. 24, the Examiner interprets each of RTR\_MOV.VRO, RTR\_STO.VRO, RTR\_STA.VRO etc. as a separate file respectively to record the streams for movie video, still picture video, still picture-added audio streams, and other streams*), the streams being distinguished from each other by a predetermined process (*Fig. 13A; Fig. 24 – in Fig. 24, the Examiner interprets each of RTR\_MOV.VRO, RTR\_STO.VRO, RTR\_STA.VRO etc. as a separate file respectively to record the streams for movie video, still picture video, still picture-added audio streams, and other streams - and each stream is distinguished from the other by at least the naming process via which each stream can be distinguished by the names of RTR\_MOV.VRO, RTR\_STO.VRO, RTR\_STA.VRO etc.*); and arranging flags in the first file, the flags being used for distinction of the n kinds of streams (*Fig. 13A; Fig. 15; column 18, lines 1-15 – the streams have their corresponding entries, which have information to tell them apart*).

Regarding claim 4, Ando discloses a method for recording data, comprising: recording management data in a first file (*Fig. 13A*); recording n kinds of streams in

second to (m+1)th ( $m \geq 2$ ) files, respectively (Fig. 13A; Fig. 24 – in Fig. 24, the Examiner interprets each of RTR\_MOV.VRO, RTR\_STO.VRO, RTR\_STA.VRO etc. as a separate file respectively to record the streams for movie video, still picture video, still picture-added audio streams, and other streams), the streams being distinguished from each other by a predetermined process (Fig. 13A; Fig. 24 – in Fig. 24, the Examiner interprets each of RTR\_MOV.VRO, RTR\_STO.VRO, RTR\_STA.VRO etc. as a separate file respectively to record the streams for movie video, still picture video, still picture-added audio streams, and other streams - and each stream is distinguished from the other by at least the naming process via which each stream can be distinguished by the names of RTR\_MOV.VRO, RTR\_STO.VRO, RTR\_STA.VRO etc.); and arranging flags in the first file, the flags being used for distinction of the n kinds of streams (Fig. 13A; Fig. 15; column 18, lines 1-15 – the streams have their corresponding entries, which have information to tell them apart).

Regarding claim 5, Ando also discloses time-map-containing streams are set to first to kth ( $k \geq 1$ ,  $k \leq n-1$ ) streams (column 31, lines 36 – each stream corresponds to at least a VOB), time-map-free streams are set to (k+1)th to nth streams (Fig. 24 – streams of computer data – there is no time-map in streams of computer data), and time maps related to the first to kth streams are recorded in the first file or a third file (column 32, lines 59-61).

Regarding claim 6, Ando also discloses wherein when  $n=2$  and  $k=1$ , a time-map-containing stream is set to a first stream (column 31, lines 36 – each stream corresponds to at least a VOB - any of these streams is set to a first stream) and a time-

map-free stream is set to a second stream (*Fig. 24 – any of the computer data stream can be set to a second stream*).

Regarding claim 7, Ando also discloses wherein time-map-containing streams are set to first to kth streams (*Fig. 25 – the stream RTR\_MOV.VRO – with  $k=0$* ), time-map-free streams are set to  $(k+1)$ th to nth streams (*Fig. 25 – the streams RTR\_STO.VRO or RTR\_STA.VRO – with  $k=0$* ), and time maps related to the first to kth streams are recorded in the first file or an  $(n+2)$ th file (*related Time Map is recorded in Navigation Data RTR\_VMG Fig. 23H, which is stored in the file RTR.IFO shown in Fig. 24*).

Regarding claim 8, wherein time-map-containing streams are set to first to kth streams (*Fig. 25 – the stream RTR\_MOV.VRO – with  $k=0$* ), time-map-free streams are set to  $(k+1)$ th to nth streams (*Fig. 25 – the streams RTR\_STO.VRO or RTR\_STA.VRO – with  $k=0$* ), and time maps related to the first to kth streams are recorded in the first file or an  $(m+2)$ th file (*related Time Map is recorded in Navigation Data RTR\_VMG Fig. 23H, which is stored in the file RTR.IFO shown in Fig. 24*).

Regarding claim 17, Ando also discloses a stream whose time information is described in the management data is set to a first stream (*Fig. 25; column 32, lines 59-61*) and a stream whose time information is not described in the management data is set to a second stream (*Fig. 24 – computer data is set to second stream – there is no time information of computer data described in the any management data described above*).

Regarding claim 18, Ando also disclose the time information is PTS (Presentation Time Stamp) (*column 32, lines 59-61*).

Regarding claim 19, Ando also discloses the stream formats of first and second streams are known (*column 13, lines 41-57*).

Regarding claim 20, Ando also discloses wherein details on a video, audio, or data format of each of the first and second streams are known (*column 13, lines 41-57; Fig. 22*).

Regarding claim 21, Ando also discloses a stream whose stream format is unknown is recorded in another file (*Fig. 24; computer data are stored in a different subdirectory, which is interpreted by the Examiner as another file*).

Regarding claim 22, Ando also discloses wherein a stream whose details on a video, audio, or data format are unknown is recorded in another file (*Fig. 24; computer data are stored in a different subdirectory, which is interpreted by the Examiner as another file*).

Regarding claim 23, Ando also discloses a stream transmitted by storage broadcasting is set to a second stream (*column 13, lines 41-57—sub-picture stream*).

Regarding claim 24, Ando discloses a method for recording data (*column 13, lines 41-67; column 14, lines 59-65*), wherein management data includes a part or all of stream-format identification information, a flag indicating whether the corresponding stream is a 1-PMT partial TS or another TS, the number of PMTs, the number of multiplexed channels in the other TS, and TS-format configuration information (*at least in Fig. 23E, "Movie AV File Information Table" and "Still Picture AV File Information*

*Table” are information that can identify the formats of the corresponding streams as “movie format” and “still picture format”), and also includes every channel part or all of broadcasting-station information, a moving-picture data compression standard, an audio data compression standard, a still-picture data compression standard, an animation data compression standard, a flag indicating the presence or absence of a time map, a flag indicating the presence or absence of time information, and a flag indicating whether the corresponding stream is a standard broadcast stream or a storage broadcast stream (at least in column 13, lines 41-48 – moving-picture data compression standard and audio data compression standard is inherently disclosed in order to decompress the data correctly according to either MPEG-2 or MPEG-1 for video data and either MPEG or AC-3 audio data during playback).*

Claim 26 is rejected for the same reasons as discussed in claims 1-4 above.

Claim 27 is rejected for the same reasons as discussed in claims 1-4 above.

Regarding claim 28, Ando discloses a method for recording data such that a plurality of streams or channels are simultaneously recorded (*column 13, lines 41-67; column 14, lines 59-65*), the method comprising: recording each stream in a file as a first stream whose relationship between time and recording position is recorded (*Fig. 20; column 23, lines 26-49 – in file RWVIDEO\_OBJECT.VOB*) or a second stream whose relationship therebetween is not recorded (*column 25, lines 18-30 – either in RWPICTURE\_OBJECT.POB or RWTHUMBNAI\_OBJECT.POB*); and recording management data for distinction of the first and second streams in another file (*Fig. 13A and Fig. 15*).

Regarding claim 29, Ando also discloses a method for recording data (*column 13, lines 41-67; column 14, lines 59-65*), comprising: recording management data in a first file (*Fig. 13A and Fig. 15*); and recording one or more unrestricted streams, each of which does not necessarily contain a time map, in second and subsequent files, respectively (*Fig. 20; column 23, lines 26-49 – in file RWVIDEO\_OBJECT.VOB; column 25, lines 18-30 –in files RWPICTURE\_OBJECT.POB or RWTHUMBNAI\_OBJECT.POB or RWAUDIO\_OBJECT.AOB*).

Regarding claim 30, Ando discloses a method for recording data (*column 13, lines 41-67; column 14, lines 59-65*), comprising: recording management data in a first file (*Fig. 13A and Fig. 15* or "*Navigation Data RTR\_VMG in Figs. 23*"); setting one or more time-map-containing streams to first to  $k$ th ( $k \geq 1$ ,  $k \geq n - 1$ ) streams and recording the streams in second and subsequent files, respectively (*Fig. 20; column 23, lines 26-49 – in file RWVIDEO\_OBJECT.VOB or Fig. 25 in file RTR\_MOV.VRO*), each stream certainly containing a time map (*Fig. 20; column 23, lines 26-49 or Fig. 25, in which RTR\_MOV.VRO has a time map*); and setting one or more unrestricted streams to  $(k+1)$ th to  $n$ th streams and recording the streams in another or other files, respectively (*Fig. 25 – RTR\_STO.VRO and RTR\_STA.VRO do not have a time map or column 25, lines 18-30 –in files RWPICTURE\_OBJECT.POB or RWTHUMBNAI\_OBJECT.POB or RWAUDIO\_OBJECT.AOB*).

Regarding claim 31, Ando also discloses each unrestricted stream is regarded as any one type of a time-map- containing stream, a table-containing stream which contains a table showing the relationship between arrival time and recording address of

the broadcast stream, and a table-free stream which does not contain a table showing the relationship between time and recording address (*Fig. 25 – RTR\_STO.VRO and RTR\_STA.VRO do not have a time map or column 25, lines 18-30 –in files RWPICTURE\_OBJECT.POB or RWTHUMBAIL\_OBJECT.POB or RWAUDIO\_OBJECT.AOB*), and a flag indicating the type is recorded separately (*Fig. 15 – “File Characteristics Indicating Type of File”; Fig. 16 – “ICB Tag Indicating Type of File”*).

Regarding claim 32, Ando also discloses wherein each unrestricted stream is divided into predetermined stream segments (*Fig. 25 – wherein each segment corresponds to at least a VOBu or a VOB*) and each segment is regarded as any one type of a time-map-containing stream segment, a table-containing stream segment which contains a table showing the relationship between arrival time and recording address-of the broadcast stream segment, and a time-map-free table-free stream segment which does not contain either of the time map and the table (*Fig. 25 – wherein each segment corresponds to at least a VOBu or a VOB – each segment in the stream RTR\_MOV.VRO is regarded as at least a time-map-containing stream segment – each segment in either RTR\_STO.VRO or RTR\_STA.VRO streams is regarded at least as time-map-free table-free stream segment*), and a flag indicating the type is recorded separately (*Fig. 15 – “File Characteristics Indicating Type of File”; Fig. 16 – “ICB Tag Indicating Type of File”*).

Regarding claim 33, Ando also discloses wherein each flag is recorded in the first file (*Fig. 15; Fig. 16*).



Regarding claim 34, Ando also discloses each unrestricted stream is regarded as any one type of a table- containing stream, which contains a table showing the relationship between arrival time and recording address of the broadcast stream, and a table-free stream, which does not contain a table showing the relationship between time and recording address (*Fig. 25 – RTR\_STO.VRO and RTR\_STA.VRO do not have a table or column 25, lines 18-30 –in files RWPICTURE\_OBJECT.POB or RWTHUMBNAIL\_OBJECT.POB or RWAUDIO\_OBJECT.AOB*), and a flag indicating the type is recorded separately (*Fig. 15 – “File Characteristics Indicating Type of File”; Fig. 16 – “ICB Tag Indicating Type of File”*).

Regarding claim 35, Ando also discloses each unrestricted stream is divided into predetermined stream segments and each segment is regarded as any one type of a table-containing stream segment, which contains a table showing the relationship between arrival time and recording address of the broadcast stream segment, and a time-map-free table-free stream segment, which does not contain either of the time map and the table (*Fig. 25 – wherein each segment corresponds to at least a VOB or a VOB– each segment in either RTR\_STO.VRO or RTR\_STA.VRO streams is regarded at least as time-map-free table-free stream segment*), and a flag indicating the type is recorded separately (*Fig. 15 – “File Characteristics Indicating Type of File”; Fig. 16 – “ICB Tag Indicating Type of File”*).

Regarding claim 36, Ando also discloses each flag is recorded in the first file (*Fig. 15; Fig. 16*).

Regarding claim 37, Ando also discloses wherein a time map or a table related to each unrestricted stream is recorded in the first tile or another file, which is not disclosed in Claim 29 (*Fig. 20; column 23, lines 45-49; Fig. 23H – “Time Map Information” in RTR.IFO (Navigation Data RTR\_VMG)*).

Regarding claim 38, Ando also discloses wherein a time map related to each time-map containing stream and a table related to each unrestricted stream are recorded in the first file or another file, which is not disclosed in Claim 30 (*Fig. 20; column 23, lines 45-49; Fig. 23H – “Time Map Information” in RTR.IFO (Navigation Data RTR\_VMG)*).

Claim 39 is rejected for the same reason as discussed in claim 29 above.

Claim 40 is rejected for the same reason as discussed in claim 29 above.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

**Claim 25 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ando et al. (US Patent 6,341,196 – hereinafter Ando) as applied to claims 1-8, 17-24, and 26-40 above.**

Regarding claim 25, Ando also discloses wherein MPEG video, H.264 video, or Windows (registered trademark) Media video is shown as the moving-picture data

compression standard (*column 13, lines 41-44*), MPEG audio, Dolby audio, or DTS audio is shown as the audio data compression standard (*column 13, lines 45-48*).

Ando does not disclose JPEG or PNG is shown as the still picture data compression standard.

JPEG or PNG as still picture data compression standard is well known in the art. Thus, Official Notice is taken.

One of ordinary skill in the art at the time the invention was made would have been motivated to incorporate the still picture data compression standard of JPEG or PNG into the recording method disclosed by Ando in order to make the method compatible with existing popular standards.

**Claims 9-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ando et al. (US Patent 6,341,196 – hereinafter Ando) as applied to claims 1-8, and 17-40 above, and further in view of Naimpally (US Patent 5,619,337).**

Regarding claim 9, see the teachings of Ando as discussed in claim 2 above. Ando also discloses is set to a first stream (*Fig. 25 – the stream RTR\_MOV.VRO*) and another stream is set to a second stream (*Fig. 25 – the stream stored in either RTR\_STO.VRO or RTR\_STA.VRO*). However, Ando does not disclose a 1-PMT partial TS (Transport Stream) having one PMT (Program Map Table) is set to the first stream.

Naimpally discloses a 1-PMT partial TS (Transport Stream) having one PMT (Program Map Table) (*Figs. 3B-D; column 7, line 26 – column 8, line 11 – the stream for program with PID P0*).

One of ordinary skill in the art at the time the invention was made would have been motivated to incorporate the 1-PMT partial TS (Transport Stream) having one PMT disclosed by Naimpally into the method disclosed by Ando so that user can select and store the stream for the program that he or she desires.

Claim 10 is rejected for the same reason as discussed in claim 9 above in further consideration of Ando also disclosing a time-map-free stream is set to a second stream (*Fig. 25 – the stream stored in either RTR\_STO.VRO or RTR\_STA.VRO*). However, Ando does not disclose the stream set to a second stream is 1-PMT partial TS.

Naimpally discloses a 1-PMT partial TS (Transport Stream) (*Figs. 3B-D; column 7, line 26 – column 8, line 11 – the stream for program with PID P0*).

One of ordinary skill in the art at the time the invention was made would have been motivated to incorporate the 1-PMT partial TS (Transport Stream) disclosed by Naimpally into the method disclosed by Ando so that user can select and store a second stream for another program that he or she desires as well.

Regarding claim 11, Naimpally also discloses one multi-PMT stream including a plurality of 1-PMT streams is set to a second stream (*Fig. 3A; column 7, line 26 – column 8, line 11 – each stream for each program has its own PMT in the multi-program transport stream shown in Fig. 3A*). One of ordinary skill in the art would also been motivated to incorporate recording of the multi-program transport stream into Ando and Naimpally so that all programs in the transport stream can be stored if the user desires to record all programs broadcasted.

Claim 12 is rejected for the same reason as discussed in claim 11 above.

Regarding claim 13, Ando and Naimpally also disclose a plurality of streams or a plurality of 1-PMT streams are combined into one 1-PMT stream (*Naimpally: column 6, lines 12-14 – the stream for a program is considered as a combination of three streams: video, audio, and data streams; Fig. 3A; column 7, line 26 – column 8, line 11 – each stream for each program has its own PMT in the multi-program transport stream shown in Fig. 3A*), and the stream is set to the first stream (*Ando: Fig. 25 – the stream RTR\_MOV.VRO*).

Claim 14 is rejected for the same reason as discussed in claim 13 above.

Regarding claim 15, Naimpally also discloses the plurality of streams or the plurality of 1-PMT streams are partial TSs of different channels (*Fig. 3A; column 7, line 26 – column 8, line 11; column 9, line 66 – column 10, line 15 – each stream for each program has its own PMT in the multi-program transport stream shown in Fig. 3A - and each stream is considered belonging to a separate channel with separate data packets - each stream is considered partial in the sense of being single-program*).

Regarding claim 16, Naimpally also discloses the plurality of streams or the plurality of 1-PMT streams are full TSs (*Fig. 3A; column 7, line 26 – column 8, line 11; column 9, line 66 – column 10, line 15 – each stream for each program has its own PMT in the multi-program transport stream shown in Fig. 3A - and each transport stream is considered full transport stream because they contains all video, audio, and general data as described in column 6, lines 12-14*).

***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hung Q. Dang whose telephone number is (571)270-1116. The examiner can normally be reached on IFT.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, THAI Q. TRAN can be reached on 571-272-7382. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Hung Q Dang/  
Examiner, Art Unit 2621

/Thai Tran/  
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